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EXAMINER
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RAHMAN, FAHMIDA

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 02/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/676,512	<b>Applicant(s)</b> BIRMINGHAM, BLAIR	
	<b>Examiner</b> Fahmida Rahman	<b>Art Unit</b> 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-24 are pending.

### **Claim Objections**

2. Claims 8, 9, 17, 22 and 24 are objected because of the following informalities:

In claim 8, "the remote device" in line 2 lacks antecedent basis. For the rest of the office action, it is assumed that claim 8 depends on claim 7, since claim 7 recites a remote device.

In claim 9, the media display command of claim 8 is recited in lines 1-2. However, claim 8 does not mandate that the remote connector comprise media display command. The alternative can be wake-up command. Therefore, claim 9 has not been treated on the merits, since Examiner provides the prior art reference for the limitation "wake-up command".

In claim 17, the "," in line 4 should be replaced with " ,".

In claim 22, "the external port" should be "an external port" as it is recited for the first time.

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Claim 24 is objected for similar reasons as claim 9. Claim 24 has not been treated on the merits for the same reasons mentioned above for claim 9.

Appropriate correction is required.

### **Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 16-20 are rejected under 35 U.S.C. 102(a) as being anticipated by Wang et al (UK Patent Application Publication 0117150.3).

For claim 16, Wang et al teach the following limitations:

**A method for remote connecting comprising** (lines 4-6 of page 2 mention that the method of remote start of wireless transmission USB is provided by means of establishing a sensor between the USB wireless perimeter and the computer host. Thus, the system connects host with USB wireless perimeter. Therefore, the USB wireless perimeter comprises a remote connector to connect the perimeter with computer host remotely):

**receiving a power supply to power a remote connector** (WATCH DOG TIME OUT in lines 4-7 of page 7) **and being capable of receiving a power supply for powering**

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**the remote connector** (lines 4-7 of page 7 mention that the WATCH DOG TIME OUT provides power to the sensor. Thus, the sensor is receiving power from WATCH DOG TIME OUT for detecting the signal. Therefore, the sensor receives power from power supply for powering the remote connector);

**providing at least one input port capable of receiving a peripheral connector** (the USB peripheral device is connected to the host. Thus, the method provides an input port capable of receiving a peripheral connector);

**wirelessly receiving a wireless command from a remote device** (lines 6-7 of page 6);

**generating a wake-up command in response to the wireless command** (lines 16-18 of page 6);

**and transmitting the wake-up request to a processing system** (lines 1-2 of page 6 mention that the method starts the wireless USB device remotely. Thus, the wake-up of USB peripheral must be conducted to both of the host computer's and the USB peripheral's processing unit so that the USB peripheral can be started from suspended state) **across an output bus** (the wireless USB peripheral is connected to the host computer through USB bus).

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For claim 17, the system of Wang et al is able to maintain suspend mode (lines 19-20 of page 3). Thus, there must be a suspend mode detector in USB peripheral that detects the suspend mode indicator. Since the wake-up is necessary only when the USB peripheral is in suspend mode, the determination if the processing system is in a suspend mode is required. If the processing unit of the USB peripheral is not in the suspended mode, then there is no need to wake-up. The processing unit can process the wirelessly received signal when it is activated.

For claim 18, the wireless command is the wake-up request.

For claim 19, the USB peripheral is connected to the host through USB port.

For claim 20, the bus for connecting USB peripheral to host must be USB bus.

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Applicant's admission of prior art, in view of Wang et al (UK Patent Application

Publication 0117150.3)

For claim 1, Applicant's admission of prior art teaches the following limitations:

**A remote connector comprising:**

**a plurality of input ports** (lines 1-2 of [0003] of page 1 of applicant's specification mention that the remote connector having plurality of input ports is a solution to the growth in the number of peripheral components. Thus, remote connector with plurality of input ports exists in prior art);

**a power supply input receiver operably coupleable to a power source and being capable of receiving a power supply for powering the remote connector** (lines 1-7 of [0005] of page 2 of applicant's specification mention that the remote connectors can be powered using two different types of power sources. Thus, the remote connector receives input power from a power source for powering the remote connector);

**a wireless receiver capable of wirelessly receiving a wireless command** (lines 4-9 of [0008] of page 3 of applicant's specification mention that RF receiver provides an input to the computing system via a USB port. Thus, the remote connector is capable of receiving a wireless command);

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The applicant's admission of prior art does not teach the following limitations:

- **and a transmitter capable of generating a wake-up command in response to the wireless command through an input/output interface.**

Wang et al teach the following limitations:

**A remote connector comprising** (lines 4-6 of page 2 mention that the method of remote start of wireless transmission USB is provided by means of establishing a sensor between the USB wireless perimeter and the computer host. Thus, the system connects host with USB wireless perimeter. Therefore, the USB wireless peripheral device comprises a remote connector to connect the perimeter with computer host remotely):

**a power supply input receiver (11) operably coupleable to a power source** (WATCH DOG TIME OUT in lines 4-7 of page 7) **and being capable of receiving a power supply for powering the remote connector** (lines 4-7 of page 7 mention that the WATCH DOG TIME OUT provides power to the sensor. Thus, the sensor is receiving power from WATCH DOG TIME OUT for detecting the signal. Therefore, the sensor receives power from power supply for powering the remote connector)



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**wireless receiver (10) capable of wirelessly receiving a wireless command** (lines 8-9 of page 6 mention that the receiver receives signals from the computer host. Since the receiver is a part of wireless USB peripheral, the signal is received wirelessly);

**and a transmitter capable of generating a wake-up command in response to the wireless command** (lines 1-6 of page 3 and lines 18-20 of page 6 mention that the REMOTE WAKEUP is carried out by sensor and microprocessor. According to lines 18-20 of page 6, the computer system is to wake up the USB peripheral. Therefore, the remote connector comprises a transmitter to send the necessary wake up signals to perform REMOTE WAKE UP of USB peripheral by the system) **through an input/output interface** (Fig 1 shows 10, 11, 12, 20 separately. Thus, the communication among them must be performed through input/output interface)

It would have been obvious for an ordinary skill in the art at the time the invention was made to combine the teachings of applicant's admission of prior art and Wang et al. One ordinary skill in the art would have been motivated to incorporate the teachings of Wang et al into applicant's admission of prior art, since that would allow the suspend and wake-up of wireless perimeter efficiently. The remote control of wireless perimeter's wakeup of can take significant time and energy if not done properly (lines 14-18 of page 1 and lines 1-3 of page 2 of Wang et al).

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For claim 2, lines 18-20 of page 6 of Wang et al mention that the computer system proceeds with REMOTE WAKE UP to wake up the wireless USB peripheral device. The wake up signal needs to be processed by a processing unit. Since the peripheral device is wireless USB peripheral, it is coupled to USB bus of the host computer wirelessly. The processing unit of the host computer must recognize the wake-up of peripheral USB through USB bus.

For claim 3, the USB peripheral device of Wang et al is suspended when operation is not required. Thus, there must be a suspend mode detector in the USB peripheral capable of receiving a suspend mode indicator from the processing unit. The wake-up command is generated when suspend mode is to be terminated. Thus, the transmitter needs to know if the USB peripheral is currently in suspended mode.

For claim 5, lines 16-19 of page 3 of Wang et al mention that the receiver comprises RF module. Since the receiver comprises RF module, the transmitter must be able to produce RF signal.

For claim 6, [0004] of page 2 of applicant's admission of prior art mentions that the remote connector is a USB hub that consists of multiple USB input ports coupled to a central internal bus.

For claim 7, wireless USB peripheral of Wang et al receives signal from remote host.

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For claim 8, the wireless request of Wang et al is a wake-up request.

For claim 10, Applicant's admission of prior art teaches the following limitations:

**A remote connector comprising:**

**a plurality of input ports** (lines 1-2 of [0003] of page 1 of applicant's specification mention that the remote connector having plurality of input ports is a solution to the growth in the number of peripheral components. Thus, remote connector with plurality of input ports exists in prior art);

**a power supply input receiver operably coupleable to a power source and being capable of receiving a power supply for powering the remote connector** (lines 1-7 of [0005] of page 2 of applicant's specification mention that the remote connectors can be powered using two different types of power sources. Thus, the remote connector receives input power from a power source for powering the remote connector);

**a wireless receiver capable of wirelessly receiving a wireless command** (lines 4-9 of [0008] of page 3 of applicant's specification mention that RF receiver provides an input to the computing system via a USB port. Thus, the remote connector is capable of receiving a wireless command);

The applicant's admission of prior art does not teach the following limitations:

- **and a transmitter capable of generating a wake-up command in response to the wireless command through an input/output interface.**

Wang et al teach the following limitations:

**A remote connector comprising** (lines 4-6 of page 2 mention that the method of remote start of wireless transmission USB is provided by means of establishing a sensor between the USB wireless perimeter and the computer host. Thus, the system connects host with USB wireless perimeter. Therefore, the USB wireless perimeter comprises a remote connector to connect the perimeter with computer host remotely. The remote connector comprises the combination of 10, 11, 12):

**a power supply input receiver (11) operably coupleable to a power source** (WATCH DOG TIME OUT in lines 4-7 of page 7) **and being capable of receiving a power supply for powering the remote connector** (lines 4-7 of page 7 mention that the WATCH DOG TIME OUT provides power to the sensor. Thus, the sensor is receiving power from WATCH DOG TIME OUT for detecting the signal. Therefore, the sensor receives power from power supply for powering the remote connector)

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**wireless receiver (10) capable of wirelessly receiving a wireless command** (lines 8-9 of page 6 mention that the receiver receives signals from the computer host. Since the receiver is a part of wireless USB peripheral, the signal is received wirelessly);

**and a transmitter capable of generating a wake-up command in response to the wireless command through an input/output interface** (lines 1-6 of page 3 and lines 18-20 of page 6 mention that the REMOTE WAKEUP is carried out by sensor and microprocessor. According to lines 18-20 of page 6, the host computer is to wake up the USB peripheral. Therefore, the remote connector comprises a transmitter to send the necessary wake up signals to perform REMOTE WAKE UP of USB peripheral by the host).

**a remote device capable of generating the wireless command and providing the wireless command to the remote connector** (lines 6-7 of page 6 of Wang et al mention that the host sends signal to wireless USB peripheral)

It would have been obvious for an ordinary skill in the art at the time the invention was made to combine the teachings of applicant's admission of prior art and Wang et al. One ordinary skill in the art would have been motivated to incorporate the teachings of Wang et al into applicant's admission of prior art, since that would allow the suspend and wake-up of wireless perimeter efficiently. The remote control of wireless perimeter's

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wakeup of can take significant time and energy if not done properly (lines 14-18 of page 1 and lines 1-3 of page 2 of Wang et al).

For claim 11, lines 18-20 of page 6 of Wang et al mention that the computer system proceeds with REMOTE WAKE UP to wake up the wireless USB peripheral device. The wake up signal needs to be processed by a processing unit. The wireless peripheral must be coupled to the host computer through input/output interface, or port. The processing unit of the host computer must recognize the wake-up of peripheral through the input/output interface.

For claim 12, [0004] of page 2 of applicant's admission of prior art mentions that the remote connector is a USB hub that consists of multiple USB input ports coupled to a central internal bus.

For claim 13, lines 16-19 of page 3 of Wang et al mention that the receiver comprises RF module. Since the receiver comprises RF module, the transmitter must be able to produce RF signal.

For claim 14, the wireless command of Wang et al is a wake-up request.

For claim 15, lines 18-20 of page 6 of Wang et al mention that the computer system proceeds with REMOTE WAKE UP to wake up the wireless USB peripheral device. The

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wake up signal needs to be processed by a processing unit. Since the peripheral device is USB peripheral, it is coupled to USB bus of the host computer through an I/O interface. The processing unit of the host computer must recognize the wake-up of peripheral USB through USB bus.

In addition, the USB peripheral device of Wang et al is suspended when operation is not required. Thus, there must be a suspend mode detector in the USB peripheral capable of receiving a suspend mode indicator from the processing unit. The wake-up command is generated when suspend mode is to be terminated. Thus, the transmitter needs to know if the USB peripheral is currently in suspended mode.

For claim 21, Applicant's admission of prior art teaches the following limitations:

**A remote connector comprising:**

**a plurality of input ports** (lines 1-2 of [0003] of page 1 of applicant's specification mention that the remote connector having plurality of input ports is a solution to the growth in the number of peripheral components. Thus, remote connector with plurality of input ports exists in prior art);

**a power supply input receiver operably coupleable to a power source and being capable of receiving a power supply for powering the remote connector** (lines 1-7 of [0005] of page 2 of applicant's specification mention that the remote connectors can

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be powered using two different types of power sources. Thus, the remote connector receives input power from a power source for powering the remote connector);

**a wireless receiver capable of wirelessly receiving a wireless command** (lines 4-9 of [0008] of page 3 of applicant's specification mention that RF receiver provides an input to the computing system via a USB port. Thus, the remote connector is capable of receiving a wireless command);

The applicant's admission of prior art does not teach the following limitations:

- **and a transmitter capable of generating a wake-up command in response to the wireless command through an input/output interface.**

Wang et al teach the following limitations:

**A remote connector comprising** (lines 4-6 of page 2 mention that the method of remote start of wireless transmission USB is provided by means of establishing a sensor between the USB wireless perimeter and the computer host. Thus, the system connects host with USB wireless perimeter. Therefore, the USB wireless peripheral device comprises a remote connector to connect the perimeter with computer host remotely):



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**a power supply input receiver (11) operably coupleable to a power source** (WATCH DOG TIME OUT in lines 4-7 of page 7) **and being capable of receiving a power supply for powering the remote connector** (lines 4-7 of page 7 mention that the WATCH DOG TIME OUT provides power to the sensor. Thus, the sensor is receiving power from WATCH DOG TIME OUT for detecting the signal. Therefore, the sensor receives power from power supply for powering the remote connector)

**a RF receiver (10) capable of wirelessly receiving a wireless command** (lines 8-9 of page 6 mention that the receiver receives signals from the computer host. Since the receiver is a part of wireless USB peripheral, the signal is received wirelessly) **transmitted using a radio frequency transmission** (lines 16-19 of page 3 of Wang et al mention that the receiver comprises RF module. Since the receiver comprises RF module, the transmitter must be able to produce RF signal), **wherein the wireless command includes a wake-up request** (the wireless request of Wang et al is a wake-up request);

**and a transmitter capable of generating a wake-up command in response to the wireless command** (lines 1-6 of page 3 and lines 18-20 of page 6 mention that the REMOTE WAKEUP is carried out by sensor and microprocessor. According to lines 18-20 of page 6, the computer system is to wake up the USB peripheral. Therefore, the remote connector comprises a transmitter to send the necessary wake up signals to perform REMOTE WAKE UP of USB peripheral by the system) **through an**

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**input/output interface** (Fig 1 shows 10, 11, 12, 20 separately. Thus, the communication among them must be performed through input/output interface)

**an output bus (USB bus) capable of being operably coupled to a processing unit** (host computer), **such that the wake-up command may be provided to the processing unit through the output bus** (lines 18-20 of page 6 of Wang et al mention that the computer system proceeds with REMOTE WAKE UP to wake up the wireless USB peripheral device. The wake up signal needs to be processed by a processing unit. Since the peripheral device is wireless USB peripheral, it is coupled to USB bus of the host computer wirelessly. The processing unit of the host computer must recognize the wake-up of peripheral USB through USB bus).

**and a suspend mode detector capable of receiving a suspend mode indicator from the processing unit such that the transmitter can determine if the wake-up command needs to be generated** (the USB peripheral device of Wang et al is suspended when operation is not required. Thus, there must be a suspend mode detector in the USB peripheral capable of receiving a suspend mode indicator from the processing unit. The wake-up command is generated when suspend mode is to be terminated. Thus, the transmitter needs to know if the USB peripheral is currently in suspended mode to generate wake-up command)

It would have been obvious for an ordinary skill in the art at the time the invention was made to combine the teachings of applicant's admission of prior art and Wang et al. One ordinary skill in the art would have been motivated to incorporate the teachings of Wang et al into applicant's admission of prior art, since that would allow the suspend and wake-up of wireless perimeter efficiently. The remote control of wireless perimeter's wakeup of can take significant time and energy if not done properly (lines 14-18 of page 1 and lines 1-3 of page 2 of Wang et al).

For claim 22, [0004] of page 2 of applicant's admission of prior art mentions that the remote connector is a USB hub that consists of multiple USB input ports coupled to a central internal bus.

For claim 23, the remote host computer sends the wireless command (lines 1-9 of page 6).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of prior art, in view of Wang et al (UK Patent Application Publication 0117150.3), as applied to claim 1 above, further in view of Pratt et al (US Patent Application 2004/0198233).

The combination of applicant's admission of prior art and Wang et al does not explicitly mention that the wireless communication is through an antenna.

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Pratt et al teaches a system where the signal is received through an antenna (30).

It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teachings of Applicant's admission of prior art, Wang et al and Pratt et al. One ordinary skill in the art would have been motivated to have an antenna for wireless communication, since antenna is well known in the art for its ability to provide tuning of the desired frequency.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fahmida Rahman whose telephone number is 571-272-8159. The examiner can normally be reached on Monday through Friday 8:30 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 571-272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fahmida Rahman  
Examiner  
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A handwritten signature in black ink, appearing to read 'Tuan N. Du', with a stylized, flowing script.

**THUAN N. DU**  
**PRIMARY EXAMINER**